Zion National Park,
Boundary Metadata

Identification_Information:
 Citation:
  Citation_Information:
   Originator: Zion National Park
   Publication_Date: 20020801
   Title: Boundary of Zion National Park as of 2002
   Geospatial_Data_Presentation_Form: vector digital data
   Online_Linkage: http://biology.usgs.gov/npsveg/zion/index.html#geospatial_veg_info
 Description:
  Abstract: This is an Arc/Info coverage containing one polygon representing the boundary (current as of April 2002) of
   Zion National Park, Utah. This coverage is in NAD 83.
  Purpose: This dataset representing the boundary of Zion National Park is used to determine land ownership, shared
   boundaries, and fencelines. This coverage is also used in almost all map compositions created in the park, showing the
   extent of Zion National Park, Utah.
  Supplemental_Information: It is important to note that this dataset may appear to be inaccurate when compared to
   topographic maps and DLG's, but that it is, in fact, the most accurate available coverage for the Zion National
   Park boundary. This dataset has been updated with data from the BLM's GCDB (Geographic Coordinate Data
   Base), GPS locations of BLM monuments, and coordinates derived from certified land surveys. This dataset also
   includes all boundary changes up to the date of the dataset (April 2002); no further changes occured between that date
   and the metadata date (August 2002). This coverage was created using NAD 27 and converted to NAD 83 in early 2002.
   The conversion to NAD 83 is to adhere to NPS spatial guidelines.
Time_Period_of_Content:
 Time_Period_Information:
  Single_Date/Time:
   Calendar_Date: 20020801
 Currentness_Reference: observed
Status:
 Progress: Complete
 Maintenance_and_Update_Frequency: As needed
Spatial_Domain:
 Description_of_Geographic_Extent: Zion National Park and environs
 Bounding_Coordinates:
  West_Bounding_Coordinate: -113.21872846
  East_Bounding_Coordinate: -112.86987792
  North_Bounding_Coordinate: 37.50987066
  South_Bounding_Coordinate: 37.13582438
Keywords:
 Theme:
  Theme_Keyword_Thesaurus: None
  Theme_Keyword: Land
  Theme_Keyword: Ownership
  Theme_Keyword: Boundary
  Theme_Keyword: Park Boundary
  Theme_Keyword: land ownership
 Place:
  Place_Keyword_Thesaurus: None
  Place_Keyword: Zion National Park
  Place_Keyword: Utah
  Place_Keyword: Southwest
  Place_Keyword: Desert
  Place_Keyword: North America

   Place_Keyword: NPS
   Place_Keyword: USA
   Place_Keyword: United States
   Place_Keyword: National Park Service
   Place_Keyword: Washington County
 Access_Constraints: None
 Use_Constraints: None
 Point_of_Contact:
  Contact_Information:
   Contact_Organization_Primary:
    Contact_Organization: Zion National Park, National Park Service
   Contact_Position: GIS Specialist
   Contact_Address:
    Address_Type: mailing and physical address
    Address: Zion National Park
    Address: State Route 9
    City: Springdale
    State_or_Province: Utah
    Postal_Code: 84767
    Country: USA
   Contact_Voice_Telephone: (435)772-0213
   Hours_of_Service: 8:00 a.m. to 4:00 p.m. Monday Through Friday
   Contact_Instructions: Except for raster data and sensitive data, data are available on national NPS spatial data
     clearinghouse, www.nps.gov/gis/available_data.html
 Native_Data_Set_Environment: UNIX-ARC/INFO

Data_Quality_Information:
 Attribute_Accuracy:
  Attribute_Accuracy_Report: All attributes and topology were cross-referenced with multiple data layers present in Zion
    National Park's GIS database. This coverage has been minimally attributed; REV-DATE, ACRES, and NAME
    are the user-defined attributes. The remaining five attributes are Arc/Info default attributes which are computed
    internally by the software.
 Logical_Consistency_Report: This dataset was processed following Zion National Park, GIS Program Standards. These
    standards verify that every dataset created in, imported to, and exported from the park adheres to certain processing
    standards that are FGDC compliant.
 Completeness_Report: This coverage was revised in August 2000 to reflect corrections to the boundary and is now
    considered 100% complete. This is the most accurate available data for the park boundary, and is based on GPS points,
    Public Land Survey System, and surveyors' (BLM Cadastral) coordinate data.
 Positional_Accuracy:
  Horizontal_Positional_Accuracy:
   Horizontal_Positional_Accuracy_Report: Accuracy is tested by visual and measured comparisons of DOQ's, GPS
     features, and other source data geospatial datasets. This is the most accurate available data for the park boundary, and is
     based on GPS points, Public Land Survey System, and surveyors' coordinate data.
 Lineage:
  Source_Information:
   Source_Citation:
    Citation_Information:
     Originator: Bureau of Land Management, Cadastral Division
     Publication_Date: Unknown
     Title: Cadastral Survey coordinate data for Zion National Park boundary
     Geospatial_Data_Presentation_Form: map
     Other_Citation_Details: This data consisted of a listing of geographic coordinates for boundary changes and
       corrections (for accuracy), a legal description of the boundary change (land acquired in a land swap which
       occurred in 1997), and maps depicting the areas involved in the land swap. This data was received at Zion from
       the BLM on 10/10/1997. The date of the original survey from which the coordinates were derived, is unknown.

For details on the Cadastral data used in creating this coverage, contact Larry Judd at the BLM Cadastral Division; 176 East D.L. Sargent Dr., Cedar City, UT 84720; 435/865-3016.
Type_of_Source_Media: certified surveyor data (Microsoft Word document)
Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: Unknown
   Source_Currentness_Reference: the publication date
 Source_Citation_Abbreviation: certified surveyor's data
 Source_Contribution: Provided coordinates used with the Arc/Info GENERATE command to create vectors for park boundary; also provided legal descriptions for newly acquired land.
Source_Information:
 Source_Citation:
  Citation_Information:
    Originator: Zion National Park
    Publication_Date: 1996
    Title: Clip of the Geographic Coordinate Database, BLM
    Geospatial_Data_Presentation_Form: database
 Source_Scale_Denominator: 24000
 Type_of_Source_Media: digital database file
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 19931112
   Source_Currentness_Reference: the publication date
 Source_Citation_Abbreviation: GCDB
 Source_Contribution: Provided coordinates for park boundary.
Source_Information:
 Source_Citation:
  Citation_Information:
    Originator: Zion National Park
    Publication_Date: 1996
    Title: GPS Collected Data for Portions of the Zion National Park Boundary
    Geospatial_Data_Presentation_Form: database
 Source_Scale_Denominator: 24000
 Type_of_Source_Media: digital database file
 Source_Time_Period_of_Content:
  Time_Period_Information:
   Single_Date/Time:
    Calendar_Date: 1996
   Source_Currentness_Reference: the publication date
 Source_Citation_Abbreviation: GPS data
 Source_Contribution: Provided GPS coordinates for locations along the park boundary.
Process_Step:
 Process_Description: Inaccuracies and discrepancies in the boundary coverage were discovered and corrected between 1996 and 1999; in addition, a land swap which necessitated a boundary change occurred in 1997. Corrections and updates were made as follows: Segments of the Zion National Park boundary were GPSed when possible. In some areas of the park the geographical terrain is so extreme that using GPS to obtain the boundary would be impossible. The remaining segments of the boundary were taken from certified surveyors' data and the Geographic Coordinate Data Base (GCDB). A series of digitized segments were snapped to these points, while the GPSed sections remained unedited. The boundary was then verified and tested in Arcedit for discrepancies and errors.
 Source_Used_Citation_Abbreviation: certified surveyor's data
 Source_Used_Citation_Abbreviation: GCDB
 Source_Used_Citation_Abbreviation: GPS data
 Process_Date: 19990809
 Process_Contact:

Contact_Information:
  Contact_Organization_Primary:
    Contact_Organization: Zion National Park, National Park Service
  Contact_Position: GIS Specialist
  Contact_Address:
    Address_Type: mailing and physical address
    Address: Zion National Park
    Address: State Route 9
    City: Springdale
    State_or_Province: Utah
    Postal_Code: 84767
    Country: USA
  Contact_Voice_Telephone: (435)772-0213
  Hours_of_Service: 8:00 a.m. to 4:00 p.m. Monday Through Friday
  Contact_Instructions: Except for raster data and sensitive data, data are available on national NPS spatial data
    clearinghouse, www.nps.gov/gis/available_data.html

Spatial_Data_Organization_Information:
 Indirect_Spatial_Reference: Zion National Park, Utah
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
  SDTS_Terms_Description:
   SDTS_Point_and_Vector_Object_Type: GT-polygon composed of rings
   Point_and_Vector_Object_Count: 1
  SDTS_Terms_Description:
   SDTS_Point_and_Vector_Object_Type: Label point
   Point_and_Vector_Object_Count: 1
  SDTS_Terms_Description:
   SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains
   Point_and_Vector_Object_Count: 1
  SDTS_Terms_Description:
   SDTS_Point_and_Vector_Object_Type: Point
   Point_and_Vector_Object_Count: 64

Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
  Planar:
   Grid_Coordinate_System:
    Grid_Coordinate_System_Name: Universal Transverse Mercator
    Universal_Transverse_Mercator:
     UTM_Zone_Number: 12
     Transverse_Mercator:
      Scale_Factor_at_Central_Meridian: 0.9996
      Longitude_of_Central_Meridian: -111
      Latitude_of_Projection_Origin: 0
      False_Easting: 500000
      False_Northing: 0
   Planar_Coordinate_Information:
    Planar_Coordinate_Encoding_Method: Coordinate Pair
    Coordinate_Representation:
     Abscissa_Resolution: 1
     Ordinate_Resolution: 1
    Planar_Distance_Units: meters
  Geodetic_Model:
   Horizontal_Datum_Name: North American Datum of 1983
   Ellipsoid_Name: Clarke 1866

Semi-major_Axis: 6378206.4
Denominator_of_Flattening_Ratio: 294.98

Entity_and_Attribute_Information:
 Overview_Description:
  Entity_and_Attribute_Overview: The first five items are the default attributes internally tracked and assigned by Arc/Info
   software. REV-DATE = 9 August 2000. The date of the last revision of this coverage. ACRES = the number of acres of
   the polygon. Arc/Info automatically calculates polygon areas in square meters as the default. This number was divided
   by 4046.8564 (square meters per acre) to obtain the figure for acres. This coverage consists of one polygon which
   represents the entire park, and its area is 148,02951129 acres. NAME = Zion National Park. The coverage consists of
   one polygon representing the park as a whole.
  Entity_and_Attribute_Detail_Citation: Contact ESRI (Environmental Systems Research, Inc.) on the World Wide Web at
   http://www.esri.com for a more detailed explanation of their internal file structure. Contact Zion National Park's
   GIS Program for more detail on the user-defined items.
 Detailed_Description:
  Entity_Type:
   Entity_Type_Label: zion_bndry.aat
   Entity_Type_Definition: Polygon Attribute Table
   Entity_Type_Definition_Source: None
  Attribute:
   Attribute_Label: $FROMNODE
   Attribute_Definition: Internal node number for the beginning of an arc (from-node).
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Numerical
  Attribute:
   Attribute_Label: $ID
   Attribute_Definition: Internal number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Numerical
  Attribute:
   Attribute_Label: $LEFTPOLYGON
   Attribute_Definition: Internal number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Numerical
  Attribute:
   Attribute_Label: $RIGHTPOLYGON
   Attribute_Definition: Internal number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Numerical
  Attribute:
   Attribute_Label: $TONODE
   Attribute_Definition: Internal number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Numerical
  Attribute:
   Attribute_Label: FID
   Attribute_Definition: Internal feature number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
  Attribute:

   Attribute_Label: FNODE#
   Attribute_Definition: Internal node number for the beginning of an arc (from-node).
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Whole numbers that are automatically generated.
  Attribute:
   Attribute_Label: LENGTH
   Attribute_Definition: Length of feature in internal units.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Positive real numbers that are automatically generated.
  Attribute:
   Attribute_Label: LPOLY#
   Attribute_Definition: Internal node number for the left polygon.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Whole numbers that are automatically generated.
  Attribute:
   Attribute_Label: RPOLY#
   Attribute_Definition: Internal node number for the right polygon.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Whole numbers that are automatically generated.
  Attribute:
   Attribute_Label: Shape
   Attribute_Definition: Feature geometry.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Coordinates defining the features.
  Attribute:
   Attribute_Label: TNODE#
   Attribute_Definition: Internal node number for the end of an arc (to-node).
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Whole numbers that are automatically generated.
  Attribute:
   Attribute_Label: ZION_BNDRY#
   Attribute_Definition: Internal feature number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
  Attribute:
   Attribute_Label: ZION_BNDRY-ID
   Attribute_Definition: User-defined feature number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
     Unrepresentable_Domain: Unique numbers.
 Detailed_Description:
  Entity_Type:
   Entity_Type_Label: zion_bndry.pat
   Entity_Type_Definition: Polygon Attribute Table
   Entity_Type_Definition_Source: None
  Attribute:
   Attribute_Label: ACRES
   Attribute_Definition: User-defined number.
   Attribute_Definition_Source: none

   Attribute_Domain_Values:
    Unrepresentable_Domain: Unique numbers - user defined.
  Attribute:
   Attribute_Label: AREA
   Attribute_Definition: Area of feature in internal units squared.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Positive real numbers that are automatically generated.
  Attribute:
   Attribute_Label: FID
   Attribute_Definition: Internal feature number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
  Attribute:
   Attribute_Label: NAME
   Attribute_Definition: Textual Park Name
   Attribute_Definition_Source: none
   Attribute_Domain_Values:
    Unrepresentable_Domain: Textual
  Attribute:
   Attribute_Label: PERIMETER
   Attribute_Definition: Perimeter of feature in internal units.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Positive real numbers that are automatically generated.
  Attribute:
   Attribute_Label: REV-DATE
   Attribute_Definition: Numerical and Textual Date
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Numerical and textual
  Attribute:
   Attribute_Label: Shape
   Attribute_Definition: Feature geometry.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Coordinates defining the features.
  Attribute:
   Attribute_Label: ZION_BNDRY#
   Attribute_Definition: Internal feature number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
  Attribute:
   Attribute_Label: ZION_BNDRY-ID
   Attribute_Definition: User-defined feature number.
   Attribute_Definition_Source: ESRI
   Attribute_Domain_Values:
    Unrepresentable_Domain: Unique numbers - user defined.

Distribution_Information:
 Distributor:
  Contact_Information:
   Contact_Organization_Primary:
    Contact_Organization: USGS Center for Biological Informatics

Contact_Position: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Address:
 Address_Type: mailing and physical address
 Address: United States Geological Survey, Center for Biological Informatics
 Address: MS 302, Bldg 810, Room 8000
 Address: Denver Federal Center
 City: Denver
 State_or_Province: Colorado
 Postal_Code: 80225
 Country: USA
Contact_Voice_Telephone: 303 202-4220
Contact_Facsimile_Telephone: 303 202-4219
Contact_Facsimile_Telephone: 303 202-4229
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Resource_Description: ZION Park Boundary
Distribution_Liability:
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 legal documents and are not intended to be used as such. The information contained in these data is dynamic and may
 change over time. The data are not better than the original sources from which they were derived. It is the
 responsibility of the data user to use the data appropriately and consistent within the limitations of
 geospatial data in general and these data in particular.

 The related graphics are intended to aid the data user in acquiring relevant data; it is not appropriate to use the
 related graphics as data.

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 NPS server and not indirectly through other sources which may have changed the data in some way. Although these data
 have been processed successfully on computer systems at the U.S. Geological Survey and the National Park Service, no
 warranty expressed or implied is made regarding the utility of the data on other systems for general or scientific
 purposes, nor shall the act of distribution constitute any such warranty. this disclaimer applies both to individual
 use of the data and aggregate use with other data.
Standard_Order_Process:
 Digital_Form:
  Digital_Transfer_Information:
   Format_Name: HTML
  Digital_Transfer_Option:
   Online_Option:
    Computer_Contact_Information:
     Network_Address:
      Network_Resource_Name: http://biology.usgs.gov/npsveg/zion/index.html#geospatial_veg_info
    Access_Instructions: Internet Access
 Fees: None

Metadata_Reference_Information:
 Metadata_Date: 20040224
 Metadata_Review_Date: 20060911
 Metadata_Contact:
  Contact_Information:
   Contact_Organization_Primary:
    Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator
   Contact_Address:
    Address_Type: mailing and physical address
    Address:
     U.S. Geological Survey, Center for Biological Informatics, MS 302,

    Room 8000, Building 810, Denver Federal Center
   City: Denver
   State_or_Province: Colorado
   Postal_Code: 80225
   Country: USA
  Contact_Voice_Telephone: (303) 202-4220
  Contact_Facsimile_Telephone: (303) 202-4219
  Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Metadata_Standard_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1:
   Biological Data Profile, 1999
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Extensions:
  Online_Linkage: http://biology.usgs.gov/fgdc.bio/bionwext.txt
  Profile_Name: Biological Data Profile FGDC-STD-001.1-1999